

In the Claims

Please substitute the claims as set forth below in a complete listing. Non-elected claims 16 and 17 have been previously canceled without prejudice. The amendments set forth below include no new matter and are fully supported in the application as filed.

1.(currently amended) A process for the production of previtamin D, the process comprising:

a first irradiation of a reaction mixture containing provitamin D with light energy having a wavelength of approximately 254 nm; and

a second irradiation of ~~the~~ said reaction mixture with light energy having a wavelength of approximately 313 nm, the reaction mixture containing no photosensitizer.

2.(original) The process of claim 1, wherein the first and second irradiations are sequential.

3.(original) The process of claim 1, wherein the reaction mixture further contains a solvent.

4.(original) The process of claim 1, wherein the reaction mixture further contains an organic solvent.

5.(original) The process of claim 1, wherein the reaction mixture further contains methanol.

6.(previously presented) A process for producing previtamin D, the process comprising:
a first irradiation of a reaction mixture containing provitamin D in the absence
of a photosensitizer with light energy having a wavelength of approximately from
240 to 265 nm and a second irradiation of said reaction mixture with light energy
having a wavelength of approximately from 300 to less than 330 nm and in the
absence of a photosensitizer.

7.(original) The process of claim 6, wherein the first and second irradiations are
sequential.

8.(original) The process of claim 6, wherein the reaction mixture further contains a
solvent.

9.(original) The process of claim 6, wherein the reaction mixture further contains an
organic solvent.

10.(original) The process of claim 6, wherein the reaction mixture further contains
methanol.

11.(currently amended) A process for producing previtamin D, the process comprising
irradiating a reaction mixture ~~containing~~ consisting essentially of tachysterol ~~and~~
~~substantially no photosensitizer~~ with light energy having a wavelength of approximately
from 300 to less than 330 nm.

12.(original) The process of claim 11, wherein said wavelength consists of 313 nm.

13.(original) The process of claim 11, wherein the reaction mixture further contains a solvent.

14.(original) The process of claim 11, wherein the reaction mixture further contains an organic solvent.

15.(original) The process of claim 11, wherein the reaction mixture further contains methanol.

16-17.(canceled)

18.(currently amended) A process for production of a vitamin D, the process comprising:
a first irradiation of a reaction mixture ~~containing~~ consisting essentially of
provitamin D ~~substantially free of photosensitizer~~ with light energy having a
wavelength of approximately 254 nm;
a second irradiation of the said reaction mixture ~~substantially free of~~
~~photosensitizer~~ with light energy having a wavelength of approximately 313 nm; and
heating the reaction mixture after the second irradiation.

19.(original) The process of claim 18, wherein heating consists of a temperature not exceeding 100° C.

20.(original) The process of claim 18, wherein the first and second irradiations are sequential.

21.(currently amended) The process of claim 18, wherein the reaction mixture further ~~comprises~~ contains a solvent.

22.(currently amended) The process of claim 18, wherein the reaction mixture further ~~comprises~~ contains an organic solvent.

23.(currently amended) The process of claim 18, wherein the reaction mixture further ~~comprises~~ contains methanol.

24.(previously presented) A process for production of vitamin D by light irradiation without the use of a photosensitizer, the process comprising:

a first irradiation of a reaction mixture containing provitamin D without a photosensitizer with light energy having a wavelength of approximately from 240 to 265 nm;

a second irradiation of said reaction mixture without photosensitizer with light energy having a wavelength of approximately from 300 to less than 330 nm; and
heating the reaction mixture after the second irradiation.

25.(original) The process of claim 24, wherein heating consists of a temperature not exceeding 100° C.

26.(original) The process of claim 24, wherein the first and second irradiations are sequential.

27.(currently amended) The process of claim 24, wherein the reaction mixture further ~~comprises~~ contains a solvent.

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28.(currently amended) The process of claim 24, wherein the reaction mixture further ~~comprises~~ contains an organic solvent.

29.(currently amended) The process of claim 24, wherein the reaction mixture further ~~comprises~~ contains methanol.